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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,773	02/26/2002	Paul Gothard Knutson	PU020045	1194

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EXAMINER	
SHEPARD, JUSTIN E	

ART UNIT	PAPER NUMBER
2424	

MAIL DATE	DELIVERY MODE
10/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/084,773	KNUTSON ET AL.	
	Examiner	Art Unit	
	Justin E. Shepard	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 8/21/08 have been fully considered but they are not persuasive.

Page 6, last paragraph:

The applicant argues that Saunders does not teach that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream signal. As admitted by the applicant in the previous paragraph, Sauders discloses a device that before transmitting, monitors the downlink beam broadcast by the satellite to acquire timing information. As Saunders monitors it locks it's internal clock frequency to the downlink signal as a way of acquiring timing information, and then uses this internal clock frequency as a way of timing the uplink signal (column 5, line 66 to column 6 line 4). It is the interpretation of the examiner that this timing the uplink signal to the frequency locked system clock as meeting the limitation. As the system would not transmit data in an uplink stream unless the system had frequency locked the system clock to the downlink stream, this is interpreted as meeting the limitation of activating the uplink during periods where locking of a downstream signal has been achieved by a satellite.

Page 7, paragraph beginning with "Ortega does not teach":

The applicant argues that Ortega does not teach that the uplink signal is conditioned on the simultaneous reception and frequency locking of a downstream

signal. The examiner agrees that Ortega does not teach this limitation, but Ortega is not being used to meet this limitation, Saunders is.

Page 8, paragraph beginning with "In contrast":

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the invention relating to bidirectional communication with LEO/MEO satellite system where subscriber equipment tracks multiple non-geosynchronous satellites) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-9, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders in view of Ortega in view of Tanabe.

Referring to claim 1, Saunders discloses an outdoor unit for a satellite ground system comprising:

downlink circuitry operative to receive a satellite signal from a satellite (figure 1), frequency lock to the satellite signal (column 5, lines 66-67; column 6, lines 1-4), process the satellite signal (bottom half of figure 2), and provide the processed satellite signal to an indoor unit of the satellite ground system (column 8, lines 38-43); and

uplink circuitry operative to receive an uplink signal from the indoor unit, process the received uplink signal (column 6, lines 39-42), and transmit the processed uplink signal to the satellites only when said downlink circuitry is receiving said satellite signal from said satellite and is frequency locked to said satellite signal from said satellite (column 4, lines 25-31).

Saunders does not disclose a system wherein the satellite signals are satellite television signals; and wherein the system simultaneously transmits and receives data.

In an analogous art, Ortega teaches a system wherein the satellite signals are satellite television signals (paragraph 27).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the television broadcasting using satellites, taught by Ortega, in the system disclosed by Saunders. The motivation would have been that using satellites to broadcast television is a way of providing data to a large amount of users without a large data network being needed.

Saunders and Ortega do not disclose a system wherein the system simultaneously transmits and receives data.

In an analogous art, Tanabe teaches a system wherein the system simultaneously transmits and receives data (column 2, line 63 to column 3, line 7; Note:

the applicant's Specification (page 24, lines 1-15) detail that the uplink only transmits when the downlink signal is received, as is taught by Tanabe.).

At the time of the invention it would have been obvious for one of ordinary skill to add the simultaneous receiving/transmitting taught by Tanabe to the system disclosed by Saunders and Ortega. The motivation would have been to enable more data to be received/transmitted as the waiting delay would be eliminated, therefore allowing the system to be more efficient.

Note: Saunders does not disclose an outdoor or indoor units, but the units in the block diagram could be located indoors, outdoors, or some combination thereof.

Claims 6 and 11 are rejected on the same grounds as claim 1.

Referring to claim 2, Saunders discloses an outdoor unit of claim 1, wherein the uplink circuitry is further operative to receive an uplink control signal (column 4, lines 61-62) indicating a frequency locked condition to signals from one of the first or second satellites from the indoor unit (column 4, lines 25-31).

Claims 7 and 12 are rejected on the same grounds as claim 2.

Referring to claim 3, Saunders discloses an outdoor unit of claim 2, wherein the uplink control signal comprises an uplink data signal and an uplink oscillator signal (column 5, lines 37-38).

Claims 8 and 13 are rejected on the same grounds as claim 3.

Referring to claim 4, Saunders discloses an outdoor unit (24) of claim 3, wherein the uplink oscillator signal is derived from one of the first or second satellite television signals (column 5, lines 5-7).

Claims 9 and 14 are rejected on the same grounds as claim 4.

Claims 5, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders in view of Ortega in view of Tanabe as applied to the claims above, and further in view of Kwentus.

Referring to claim 5, Saunders discloses a system wherein error correction is performed on the oscillator signal (figure 2, parts 214, 222, and 226).

Saunders, Ortega and Tanabe do not disclose an outdoor unit, wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first or second satellite television signals.

In an analogous art, Kwentus teaches an outdoor unit, wherein the uplink oscillator signal is derived from frequency conversion error data from one of the first or second satellite television signals (paragraph 46, lines 2-3 and 6-9).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use frequency error data to synchronize the system clock, as taught by Kwentus, in the system disclosed by Saunders, Ortega and Tanabe. The motivation would have been that the more accurate the system clock is, the more accurately the uplink data will be transferred.

Claims 10 and 15 are rejected on the same grounds as claim 5.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2424

JS